lonyx, and *Palinurus quadricornis* are next described, and an explanation attempted of the uses of the several parts and their subserviency to the purposes of that sense.

The author concludes by a description of another organ situated at the base of the large antennæ, which it appears has been confounded with the former by some anatomists, but which the author conjectures may possibly constitute an organ of smell. The paper is accompanied by illustrative drawings.

5. "A statement of Experiments showing that Carbon and Nitrogen are compound bodies, and are made by Plants during their growth." By Robert Rigg, Esq., F.R.S.

The author, finding that sprigs of succulent plants, such as mint, placed in a bottle containing perfectly pure water, and having no communication with the atmosphere except through the medium of water, or mercury and water, in a few weeks grow to more than double their size, with a proportionate increase of weight of all the chemical elements which enter into their composition, is thence disposed to infer that all plants make carbon and nitrogen; and that the quantity made by any plant varies with the circumstances in which it is placed.

6. "Physiological inferences derived from Human and Comparative Anatomy respecting the Origins of the Nerves, the Cerebellum, and the Striated Bodies." By Joseph Swan, Esq. Communicated by Richard Owen, Esq., F.R.S.

The author remarks that those parts of the nervous system which are concerned in motion and in sensation exhibit a great similarity in all vertebrate animals. To the first of these functions belong the anterior and middle portions of the spinal cord and medulla oblongata, including the anterior pyramids, the crura cerebri, and some fibres leading to the corpora striata and the convolutions, and also the cerebellum. To the function of sensation belong the posterior surface of the spinal cord, the posterior and lateral portions of the medulla oblongata, including the posterior pyramids, the ventricular cords, and the fourth and third ventricles.

From a general comparison of the relative magnitude and structure of these several parts in the different classes of vertebrated animals, the author infers that only a very small portion of the brain is necessary for the origins of the nerves, their respective faculties being generally derived near the place at which they leave the brain. These origins are traced in various cases, where, from peculiarities of arrangement or of destination, they present certain remarkable differences of situation.

The author is led to consider the cerebellum as an appendage to the brain, rather than to the medulla oblongata and spinal nerves, for it does not correspond with either the number or the size of the sensitive or motor nerves; and that it is not required for the intellect, for the special senses, for common sensation, or for volition, appears from its size bearing no proportion to the strength of